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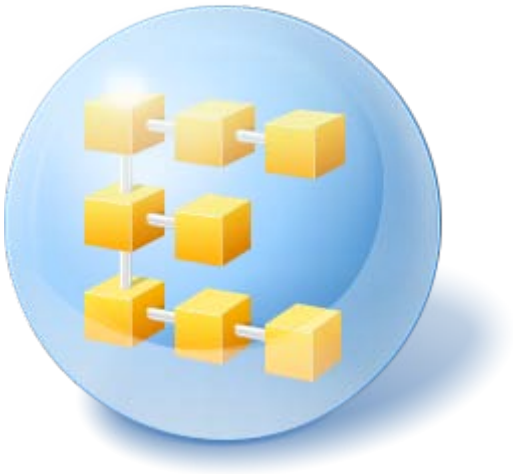

# *Acronis® Backup & Recovery ™ 10 Advanced Server SBS Edition*

*Installation Guide*

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# 1. Installation of Acronis Backup & Recovery 10

Acronis Backup & Recovery 10 installation documentation helps answer questions that might arise before and during the product installation.

## 1.1. Acronis Backup & Recovery 10 components

This section contains a list of Acronis Backup & Recovery 10 components with a brief description of their functionality.

Acronis Backup & Recovery 10 includes three types of components.

### Components for a managed machine (agents)

These are applications that perform data backup, recovery and other operations on the machines managed with Acronis Backup & Recovery 10. Agents require a license to perform operations on each managed machine. Agents have multiple features, or add-ons, that enable additional functionality and so might require additional licenses.

### Components for centralized management

These components, delivered with the Advanced, SBS and Virtual Acronis Backup & Recovery 10 editions, provide the centralized management capability. Usage of these components is not licensed.

### Console and tools

The console provides Graphical User Interface and remote connection to the agents and other Acronis Backup & Recovery 10 components. With bootable media builders, you can create bootable media in order to use the agents and other rescue utilities in a rescue environment. Availability of the agent add-ons in a rescue environment depends on whether an add-on is installed on the machine where the media builder is working.

### 1.1.1. Agent for Windows

This agent enables disk-level and file-level data protection under Windows.

#### Disk backup

Disk-level data protection is based on backing up either a disk or a volume file system as a whole, along with all the information necessary for the operating system to boot; or all the disk sectors using the sector-by-sector approach (raw mode). A backup that contains a copy of a disk or a volume in a packaged form is called a disk (volume) backup or a disk (volume) image. It is possible to recover disks or volumes as a whole from such backup, as well as individual folders or files.

#### File backup

File-level data protection is based on backing up files and folders residing on the machine where the agent is installed or on a network share. Files can be recovered to their original location or to another place. It is possible to recover all files and folders that were backed up or select which of them to recover.

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### Other operations

#### Conversion to a virtual machine

Rather than converting a disk backup to a virtual disk file, which requires additional operations to bring the virtual disk into use, Agent for Windows performs the conversion by recovering a disk backup to a new virtual machine of any of the following types: VMware Workstation, Microsoft Virtual PC, Parallels Workstation or Citrix XenServer virtual appliance. Files of the fully configured and operational machine will be placed in the folder you select. You can start the machine using the respective virtualization software or prepare the machine files for further usage.

#### Disk management

Agent for Windows includes Acronis Disk Director Lite - a handy disk management utility. Disk management operations, such as cloning disks; converting disks; creating, formatting and deleting volumes; changing a disk partitioning style between MBR and GPT or changing a disk label, can be performed either in the operating system or using bootable media.

#### 1.1.1.1. Universal Restore

The Universal Restore add-on enables you to use the restore to dissimilar hardware functionality on the machine where the agent is installed, and create bootable media with this functionality. Universal Restore handles differences in devices that are critical for Windows start-up, such as storage controllers, motherboard or chipset.

#### 1.1.1.2. Deduplication

This add-on enables the agent to back up data to deduplicating vaults managed by Acronis Backup & Recovery 10 Storage Node.

### 1.1.2. Bootable components and media builder

Bootable components of the agent enable operations with reboot, such as recovery of the volume containing the currently active operating system. Once the operations are completed, the machine boots into the operating system again. The bootable components are based on the Linux kernel. You can choose not to install the bootable components and perform operations that require reboot using bootable media.

Acronis Bootable Media Builder is a dedicated tool for creating bootable media containing the bootable components. The media builder, delivered with Agent for Windows, creates bootable media that represents volumes and network in the Windows-like style (C:, D:, \\server\share).

The Universal Restore add-on enables you to use the restore to dissimilar hardware functionality on the machine where the agent is installed, and create bootable media with this functionality. Universal Restore handles differences in devices that are critical for Windows start-up, such as storage controllers, motherboard or chipset.

### 1.1.3. WinPE ISO Builder

Acronis WinPE ISO Builder is a dedicated tool for creating bootable media based on Windows preinstallation environment. This tool can be installed only on machines running Windows.


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## 1.1.4. Components for centralized management

This section lists the components included in the Acronis Backup & Recovery 10 editions that provide the centralized management capability. Besides these components, Acronis Backup & Recovery 10 Agents have to be installed on all machines that need data protection.

### 1.1.4.1. Management Server

Acronis Backup & Recovery 10 Management Server is the central server that drives data protection within the enterprise network. The management server provides the administrator with:

- a single entry point to the Acronis Backup & Recovery 10 infrastructure
- an easy way to protect data on numerous machines using backup policies and grouping
- enterprise-wide monitoring functionality
- the ability to create centralized vaults for storing enterprise backup archives
- the ability to manage storage nodes.

If there are multiple management servers on the network, they operate independently, manage different machines and use different centralized vaults for storing archives.

#### The management server's databases

The management server uses three Microsoft SQL databases:

- The configuration database that stores the list of registered machines and other configuration information, including backup policies created by the administrator.
- The synchronization database used for synchronization of the management server with registered machines and storage nodes. This is a database with rapidly changing operational data.
- The reporting database that stores the centralized log. This database may grow large. Its size depends on the logging level you set.

The configuration and synchronization databases should reside on the same Microsoft SQL Server (called an operational server) preferably installed on the same machine as the management server. The reporting database can be configured on the same or different SQL server.

When installing a management server, you can select for both operational and reporting servers what server to use. The following options are available:

1. Microsoft SQL Server 2005 Express that comes with the installation package and installs on the same machine. In this case, an SQL server instance with three databases will be created on the machine.
2. Microsoft SQL Server 2008 (any edition) previously installed on any machine.
3. Microsoft SQL Server 2005 (any edition) previously installed on any machine.

### 1.1.4.2. Storage Node

Acronis Backup & Recovery 10 Storage Node is a server aimed to optimize usage of various resources (such as the corporate storage capacity, the network bandwidth, or the managed machines' CPU load) required for the enterprise data protection. This goal is achieved through organizing and managing the locations that serve as dedicated storages of the enterprise backup archives (managed vaults).

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The storage nodes enable creating highly scalable and flexible, in terms of the hardware support, storage infrastructure. Up to 20 storage nodes can be set up, each being able to manage up to 20 vaults. The administrator controls the storage nodes centrally from the Acronis Backup & Recovery 10 Management Server. Direct console connection to a storage node is not possible.

## Setting up the storage infrastructure

Install the storage nodes, add them to the management server (the procedure is similar to the managed machine registration) and create centralized vaults. When creating a centralized vault, specify the path to the vault, the storage node that will manage the vault, and the management operations to be performed on the vault.

A managed vault can be organized:

- on the hard drives local to the storage node
- on a network share
- on a Storage Area Network (SAN)
- on a Network Attached Storage (NAS)
- on a tape library locally attached to the storage node.

The management operations are as follows.

## Storage node-side cleanup and validation

Archives, stored in unmanaged vaults, are maintained by the agents that create the archives. This means that each agent not only backs up data to the archive, but also executes service tasks that apply to the archive, the retention rules and validation rules specified by the backup plan. To relieve the managed machines of unnecessary CPU load, execution of the service tasks can be delegated to the storage node. Since the tasks' schedule exists on the machine the agent resides on, and therefore uses that machine’s time and events, the agent has to initiate the storage node-side cleanup and the storage node-side validation according to the schedule. To do so, the agent must be online. Further processing is performed by the storage node.

This functionality cannot be disabled in a managed vault. The next two operations are optional.

## Deduplication

A managed vault can be configured as a deduplicating vault. This means that identical data will be backed up to this vault only once to minimize the network usage during backup and storage space taken by the archives. For more information, please see Deduplication.

## Encryption

A managed vault can be configured so that anything written to it is encrypted and anything read from it is decrypted transparently by the storage node, using a vault-specific encryption key stored on the node server. In case the storage medium is stolen or accessed by an unauthorized person, the malefactor will not be able to decrypt the vault contents without access to this specific storage node.

If the archive is already encrypted by the agent, the storage node-side encryption is applied over the encryption performed by the agent.

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#### 1.1.4.3. PXE Server

Acronis PXE Server allows for booting machines into Acronis bootable components through the network.

The network booting:

- Eliminates the need to have a technician onsite to install the bootable media into the system that has to be booted
- During group operations, reduces the time required for booting multiple machines as compared to using physical bootable media.

#### 1.1.4.4. License Server

The server enables you to manage licenses of Acronis products and install the components that require licenses.

For more information about Acronis License Server please see "Using Acronis License Server (p. 18)".

### 1.1.5. Management Console

Acronis Backup & Recovery 10 Management Console is an administrative tool for remote or local access to Acronis Backup & Recovery 10 agents, and in the product editions that include the centralized management capability, to the Acronis Backup & Recovery 10 Management Server.

The console has two distributions for installation on Windows and installation on Linux. While both distributions enable connection to any Acronis Backup & Recovery 10 agent and Acronis Backup & Recovery 10 Management Server, we recommend that you use the console for Windows if you have a choice between the two. The console that installs on Linux has limited functionality:

- remote installation of Acronis Backup & Recovery 10 components is not available
- the Active Directory-related features, such as browsing the AD, are not available.

## 1.2. Supported operating systems

**Acronis License Server**

- Windows Professional 2000 SP4/XP Professional SP2
- Windows Server 2000/Advanced Server 2000/Server 2003/ SBS 2003/ SBS 2008/ Server 2008
- Windows XP Professional x64 Edition, Windows Server 2003/2008/ x64 Editions
- Windows Vista all Editions except for Vista Home Basic and Vista Home Premium

**Acronis Backup & Recovery 10 Management Console**

- Windows Professional 2000 SP4/XP Professional SP2
- Windows Server 2000/Advanced Server 2000/Server 2003/ SBS 2003/ SBS 2008/ Server 2008
- Windows XP Professional x64 Edition/Home Edition, Windows Server 2003/2008 x64 Editions
- Windows Vista all Editions

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### Acronis Backup & Recovery 10 Management Server and Acronis Backup & Recovery 10 Storage Node

- Windows Professional 2000 SP4/XP Professional SP2
- Windows Server 2000/Advanced Server 2000/Server 2003/ SBS 2003/ SBS 2008/ Server 2008
- Windows XP Professional x64 Edition, Windows Server 2003/2008/ x64 Editions
- Windows Vista all Editions except for Vista Home Basic and Vista Home Premium

### Acronis Backup & Recovery 10 Agent for Windows

- Windows SBS 2003
- Windows SBS 2008

## 1.3. License policy

Acronis Backup & Recovery 10 licensing is based on the number of machines managed and protected by the product. Acronis Backup & Recovery 10 agents require a license to perform operations on each managed machine.

**Acronis Backup & Recovery 10 Advanced Server SBS Edition (ABR10 AS SBS)**

**Acronis Backup & Recovery 10 Advanced Workstation (ABR10 AW)**

These editions include Acronis License Server that has to be installed prior to agent installation. License keys can be imported to the Acronis License Server from .txt or .eml files during the server installation or later on. One license key enables installation of the agent on a physical host and four virtual machines.

Acronis Backup & Recovery 10 agent connects to Acronis License Server every time the agent service is started and then every 1–5 days, as specified by the agent configuration parameters. If the agent is unable to connect to the license server or does not find the appropriate license key for 1-60 days (as specified by the configuration parameters), it stops working until there has been a successful license check.

By default, the agent tries to connect to the license server every day and keeps working without a license server or license for 30 days.

## 1.4. Trial product version

Installation of Acronis Backup & Recovery 10 trial version does not require a license server. The trial key required at installation can be obtained on the Acronis Web site.

The Acronis Backup & Recovery 10 trial version has the following limitation:

- Universal Restore functionality is disabled.

Additional limitations for bootable media:

- The disk management functionality is available, but there is no option to commit the changes
- Besides disk management, only the recovery functionality is available.


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To upgrade from the trial version to the standard product you do not need to re-download the software. When the trial period is over, the product GUI displays a notification offering to specify a standard license key.

To specify the standard license key for a stand-alone product edition, run the installation package and follow the wizard's instructions. For editions with centralized management you need to install Acronis License Server and import the standard license keys.

# 1.5. Local installation (Windows)

You have a choice between downloading a full installation package and a small executable package that will download from Acronis Web site, only those components that you select to install.

## 1.5.1. Preparation

Install Acronis License Server and import the licenses. You can skip this step when using a trial license key or when installing only components that do not require license keys.

To install the license server, run the installation package, then click **Install Acronis Backup & Recovery 10**, then click **Install Acronis License Server on this machine**, and then follow the on-screen instructions.

Acronis Backup & Recovery 10 uses TCP port 9876 for local installation and for communication between components. The setup program automatically opens this port through Windows Firewall. If you use a different firewall, make sure that the port is open for both incoming and outgoing requests through that firewall.

## 1.5.2. Installation procedure

Do the following to install Acronis Backup & Recovery 10:

1. Run the Acronis Backup & Recovery 10 setup file.
2. Click **Install Acronis Backup & Recovery 10**.
3. Specify the name or IP address of the Acronis License Server, or type your trial license key.
4. Select the components and specify the component features that you want to install.
5. If prompted, specify one or more of the following parameters depending on your component selection:
   - Credentials for the Acronis Backup & Recovery 10 component services. By default, the setup program will create a dedicated user account for each service. See "Specifying credentials for Acronis services (p. 10)".
   - The names of Microsoft SQL servers to be used by Acronis Backup & Recovery 10 Management Server. See "Specifying Microsoft SQL servers (p. 10)".
   - Whether to register Acronis Backup & Recovery 10 Agent for Windows and/or Acronis Backup & Recovery 10 Storage Node on the management server. See "Registering components on the management server (p. 11)".
   - The names of users who will be allowed to connect to the machine remotely. See "Specifying users allowed to connect remotely (p. 11)".

The summary window displays the list of components that will be installed on the machine.

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### 1.5.3. Specifying credentials for Acronis services

The Acronis Backup & Recovery 10 Agent for Windows, Acronis Backup & Recovery 10 Management Server, and Acronis Backup & Recovery 10 Storage Node components run as services. When installing any of these components, you need to specify the account under which the component's service will run.

For each service, you can either create a dedicated user account (recommended in most cases) or specify an existing account of a local or domain user—for example: **.\LocalUser** or **DomainName\DomainUser**. If you are planning to use Acronis Backup & Recovery 10 Management Server in an Active Directory domain, we recommend using an existing *domain user account* for the management server service.

If you choose to create dedicated user accounts for the services, the setup program will create the following user accounts:

- For the Acronis Backup & Recovery 10 Agent for Windows service, **Acronis Agent User**
- For the Acronis Backup & Recovery 10 Management Server service, **AMS User**
- For the Acronis Backup & Recovery 10 Storage Node service, **ASN User**

For security purposes, each of the newly created accounts will be assigned only the user rights that are necessary to run the corresponding service:

- All three accounts are assigned the **Log on as a service** right.
- The Acronis Agent User account is additionally assigned the **Log on locally**, **Back up files and directories**, **Restore files and directories**, and **Shut down the system** user rights.

If you choose to specify an existing user account for the agent service, make sure that the account has the user rights listed above.

If the machine is part of an Active Directory domain, make sure that the domain's security policies do not prevent the accounts (whether existing or newly created) from having these user rights. The same applies to the **__acro_subst_user__** account—an auxiliary account which has the **Log on as a service** right.

***Important:*** *After the installation, you cannot specify a different user account for a component's service.*

### 1.5.4. Specifying Microsoft SQL servers

When installing Acronis Backup & Recovery 10 Management Server, you need to specify the Microsoft SQL servers for the management server's databases:

- **The operational SQL server** ensures synchronization of the Acronis Backup & Recovery 10 components and stores the policies configuration.
- **The reporting SQL server** stores the operation log and statistics. The database stored on this server may become considerably large over time.

For each SQL server, select one of the following:

- Microsoft SQL Server 2005 Express that comes with the installation package and installs on the same machine. In this case, an SQL server instance will be created on the machine.
- Microsoft SQL Server 2008 (any edition) previously installed on any machine.


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- Microsoft SQL Server 2005 (any edition) previously installed on any machine.

### Recommendations

For the operational SQL server, we recommend selecting a server that resides on the same machine as the management server—for example, Microsoft SQL Server 2005 Express that comes with the installation package.

For the reporting SQL server, you can choose the same server as for the operational SQL server, or a different server—not necessarily on the same machine.

## 1.5.5. Registering components on the management server

When installing Acronis Backup & Recovery 10 Agent for Windows or Acronis Backup & Recovery 10 Storage Node (or both), you need to specify whether to register these components on Acronis Backup & Recovery 10 Management Server.

After the agent is registered on the management server, the machine can be centrally managed by management server administrators. Such machine is called a registered machine.

After the storage node is registered on the management server, registered machines can back up data to and recover data from the storage node's centralized vaults.

To register the agent and/or the storage node during installation (recommended):

1. Click **Register on the management server installed on the specified machine**.
2. Specify the name or IP address of the machine with the management server. That machine must be online. It can be the local machine—for example, when the management server is among the components you are installing.
3. Specify the user name and password of a user who is a member of the Acronis Centralized Admins group on the management server's machine. If you are installing the management server on the local machine, specify the user name and password of a member of the Administrators group.

To skip registration:

- Click **I will register the component(s) later**.

After the installation, you can register the components on the management server or remove them from it, through the management server's interface.

## 1.5.6. Specifying users allowed to connect remotely

When installing Acronis Backup & Recovery 10 Agent for Windows or Acronis Backup & Recovery 10 Management Server (or both), you need to specify the list of users whom you want to allow to manage the machine remotely by using Acronis Backup & Recovery 10 Management Console.

By default, the list contains all members of the Administrators group on the machine; note that this includes the domain administrators (if the machine is in an Active Directory domain).

The setup program creates the **Acronis Remote Users** group and adds the listed users to it. By adding or removing group members, you will add or remove users who are allowed to connect to the machine remotely.

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### 1.5.7. Update

To update one or more Acronis Backup & Recovery 10 components:

1. Run the installation package, containing the updated version of Acronis Backup & Recovery 10.
2. Click **Install Acronis Backup & Recovery 10**.
3. Specify the name or IP address of Acronis License Server.
4. Click **Update**.
5. Follow the on-screen instructions.

## 1.6. Remote installation (Windows)

Acronis Backup & Recovery 10 Agent for Windows can be installed remotely.

To perform remote installation, you need administrator privileges on the target machines.

#### Preparation

1. Install Acronis License Server and import the licenses. You can skip this step when using a trial license key.
2. Install Acronis Backup & Recovery 10 Management Console.
3. For successful installation on a remote machine running any Windows XP version, the option **Control panel > Folder options > View > Use simple file sharing** must be disabled on that machine.
4. For successful installation on a remote machine running Windows XP with Service Pack 2 or Windows 2003 Server, the option **Control panel > Windows Firewall > Exceptions > File and Printer Sharing** must be enabled on that machine.
5. Acronis Backup & Recovery 10 uses TCP ports 445 and 25001 for remote installation. Make sure that these ports are added to exceptions in the firewall settings on the remote machines.

   ***Tip:*** *If the remote machines are members of an Active Directory domain and use no firewall other than Windows Firewall, you can add TCP port 25001 to exceptions by using Group Policy. On a domain controller, create a Group Policy object, then go to* ***Administrative Templates -> Network -> Network Connections -> Windows Firewall -> Domain Profile -> Windows Firewall: Define port exceptions****, and then add the following port exception:*
   ***25001:tcp:*:enabled:Acronis remote install***
   *TCP port 445 is added to exceptions automatically by Windows Firewall when you enable File and Printer Sharing.*

You can exclude both ports from exceptions after the remote installation is complete.

#### Installation

1. Run Acronis Backup & Recovery 10 Management Console.
2. Click **Install Acronis components.**
3. Select the installer location from the list (Registered Components, Search removable media or Specify location). The default selection **Registered Components** will use setup files from the default folder: C:\Program Files\Common Files\Acronis\RemoteInstall.


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4. Specify the features of Acronis Backup & Recovery 10 Agent for Windows that you want to install.

   ***Installation of the Deduplication and the Universal Restore add-ons***

   *To install the agent with these add-ons, repeat the installation procedure twice. First install the agent and then install the add-ons. Do the same if you are not sure whether the agent is installed. Successful remote installation of the agent and the add-ons in one pass is not guaranteed.*

5. Specify the name or IP address of the Acronis License Server, or type a trial license key. You can use a single trial license key for remote installation to multiple machines.
6. Select machines on which the agent is to be installed. This can be done by:
   - browsing the network. When browsing the network, you can select individual machines, as well as entire workgroups or domains
   - typing machine names or IP addresses (click **Next** then add machines to the list)
   - importing the list of the machines from .txt or .csv files.
7. Provide the administrator's user name and password for each machine. If there is a universal administrator account on the network, enter the account credentials for one machine and set the option to apply it to all the machines that you select. Domain administrator credentials and universal credentials for workgroups can be applied in this way.

   If you do not specify credentials for all machines involved, or if the credentials are not valid for some machines, you will have an option to provide credentials during installation (there is an option **Other user** in the user name and password error prompt).

The summary window displays a list of machines where the agent will be installed.

Once the installation starts, the program displays the operation progress and the name of the machine on which the agent is being installed.

### Update

To update Acronis Backup & Recovery 10 Agent for Windows on a remote machine, perform the same procedure.

## 1.7. Installing components using Group Policy

You can centrally install, or deploy, Acronis Backup & Recovery 10 Agent for Windows onto machines that are members of an Active Directory domain, by using Group Policy, a mechanism available in Microsoft Windows 2000 Server and later Windows server operating systems.

With Group Policy, a domain administrator can specify a set of actions that will be performed on each machine in the entire domain or its part every time the machine logs on to the domain.

### Example

Let us suppose that a domain administrator wants to deploy Acronis Backup & Recovery 10 Agent for Windows onto all accounting office machines, so that whenever a domain user logs on to Windows on any of these machines, the domain controller ensures that the agent is installed and operational on the machine.

Assume that the domain already has the Accounting Office organizational unit, which contains all accounting office machines.

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First, the domain administrator configures the agent's setup file by specifying such parameters as the license key to use for the deployments, and the name of Acronis License Server to verify the license key's validity.

Then, the domain administrator assigns the setup file for centralized deployment, by creating a Group Policy object.

As a result, every time a domain user logs on to Windows from any of the accounting office machines, the domain controller checks whether Acronis Backup & Recovery 10 agent is installed on the user's machine, and installs the agent if necessary.

No user interaction is needed during such installation, nor does the user have to be a member of the Administrators group on the machine.

### 1.7.1. Preparing the agent's deployment

In this and the following topic, you will find out how to set up a Group Policy object to deploy Acronis Backup & Recovery 10 Agent for Windows onto machines in an entire domain or in its organizational unit.

Every time a machine logs on to the domain, the resulting Group Policy object will ensure that the agent is installed and operational on the machine.

#### Prerequisites

Before proceeding with agent deployment, make sure that:

- You have an Active Directory domain with a domain controller running Microsoft Windows Server 2003 or later.
- You are a member of the Domain Admins group in the domain.
- You know the license key or the name or IP address of a machine where Acronis License Server is installed.
- You have a machine running Windows, with Acronis Backup & Recovery 10 Management Console installed on it.

***Step 1: Extracting the installation package***

First, you need to create a shared folder that will contain the agent's installation package (provided as an .msi file), and extract the package there.

1. On the domain controller (or any other machine in the domain), create a folder—for example: **D:\Acronis**
2. Run the Acronis Backup & Recovery 10 setup file.
3. Click **Extract installation files**.
4. Select the **Agent (AcronisAgentWindows.msi)** check box. You can clear the remaining check boxes.
5. In **Extract to**, type the name of the folder that you just created, or click **Browse** and select the folder.
6. Click **Extract**.

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### *Step 2: Sharing the folder*

You now need to share the folder that you created in Step 1.

1. Right-click the folder's name, and then click **Sharing and Security**.
2. In the folder properties dialog box, click **Share this folder**. In **Share name**, you can type an alternative name for the shared folder instead of the default one if necessary.
3. Click **Permissions.**
4. In the share permissions dialog box, click **Add**.
5. In the **Select Users or Groups** dialog box, type **Authenticated Users** and then click **OK**.
6. Under **Group or user names**, select **Authenticated Users**. Under **Permissions for Administrators**, make sure that only **Read** is checked in the **Allow** column.
7. As a security best practice, select **Everyone** under **Group or user names**, and then click **Remove**.
8. Click **OK** to close the share permissions dialog box, and then click **OK** to close the folder properties dialog box.

### *Step 3: Configuring the agent's installation package*

Finally, you need to configure the agent's installation package by running the configuration script, which is installed along with the management console. By default, the script is located in the folder %ProgramFiles%\Acronis\BackupAndRecoveryConsole. If the management console is installed on a different machine, you can simply copy the configuration script from that machine.

The configuration script creates a transform (also known as a modification, a modification file, or an .mst file) for the installation package.

1. In the **Start** menu, click **Run**, and then type: **cmd**
2. Click **OK**.
3. Change the current folder to the one where the configuration script **mst_gen.vbs** is located, by running commands such as:

   ```
   C:
   cd "C:\Program Files\Acronis\BackupAndRecoveryConsole"
   ```

4. Run the configuration script.

   For example, the following command creates a transform for the file **\\server\Acronis\AgentWindows.msi** and uses licenses for the Acronis Backup & Recovery 10 Advanced Server edition from the license server installed on **mylicensesrv**; the agent will run under the user account **mydomain\AgentUser**:

   ```
   mst_gen.vbs /msi_path \\server\Acronis\AgentWindows.msi /license_server
   mylicensesrv /product AS /account mydomain\AgentUser MyPassWd
   ```

The following is the complete syntax of the configuration script:

**mst_gen.vbs**
**/msi_path** *Full_Path*
{**/serial** *License_Key* [**/old_serial** *Echo_License_Key*] | **/license_server** *License_Server* **/product** *Edition_Code*}
[**/account** *User_Name Password*]
[**/target_dir** *Installation_Folder*]

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[**/remote_users** *User1 User2 ... UserN*]
[**/ams_address** *Management_Server* **/ams_user** *Admin_Name Password*]

The script parameters are the following:

**/msi_path** *Full_Path*

Specifies a full path to the agent's installation package. Enter a local path, such as **D:\Acronis\AgentWindows.msi**; or a universal naming convention (UNC) path, such as **\\server\Acronis\AgentWindows.msi**.

**/serial** *License_Key*

Specifies the license key to use when installing the package. A license key is a sequence of letters and numerals separated by dashes. Enter the license key exactly, including the dashes.

**/old_serial** *Echo_License_Key*

When upgrading from Acronis True Image Echo, specifies the license key for that edition. Use this parameter with the **/serial** parameter.

**/license_server** *License_Server*

Specifies the name or IP address of the machine where Acronis License Server is installed.

**/product** *Edition_Code*

Specifies the code of your edition of Acronis Backup & Recovery 10. Use this parameter with the **/license_server** parameter.

The codes are the following:

*Stand-alone editions*

Acronis Backup & Recovery 10 Server for Windows: **SW**

Acronis Backup & Recovery 10 Workstation: **W**

*Advanced editions*

Acronis Backup & Recovery 10 Advanced Server: **AS**

Acronis Backup & Recovery 10 Advanced Server SBS Edition: **SBS**

Acronis Backup & Recovery 10 Advanced Workstation: **AW**

Acronis Backup & Recovery 10 Advanced Server Virtual Edition: **VE**

***Note:*** *Specify either the* ***/serial*** *parameter or the* ***/license_server*** *parameter, but not both.*

**/account** *User_Name Password*

Specifies the user name and password of the user account under which Acronis Managed Machine Service will run on the machines. The user account must have appropriate privileges, as described in Rights for Acronis services. Separate the name of the domain and the account by a backslash, as in: **mydomain\user**

Without this parameter, the agent will run under the default account: **Acronis Agent User**

**/target_dir** *Installation_Folder*

Specifies the folder where to install the agent. Without this parameter, the agent will be installed to the default folder: %ProgramFiles%\Acronis\BackupAndRecovery\Agent

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**/remote_users** *User1 User2 ... UserN*

Specifies the user names that will be added to the Acronis Remote Users group.

With this parameter, only the specified users will be added to the group. Separate the user names by spaces.

Without this parameter, all members of the Administrators group on the particular machine will be added to the group.

Members of the Acronis Remote Users group are allowed to connect to the agent remotely.

**/ams_address** *Management_Server*

Specifies the name or IP address of the Acronis Backup & Recovery 10 Management Server. With this parameter, the machine will be registered on the management server after the installation is complete.

**/ams_user** *Admin_Name Password*

Specifies the name and password of a user who is a member of the **Acronis Centralized Admins** group on the management server. Use this parameter with the **/ams_address** parameter.

***Note:** The script also has the **/current_user** optional parameter, but it is not effective for installation using Group Policy.*

The agent's setup file is ready for deployment. You now need to create a Group Policy object, as described in the next topic.

## 1.7.2. Setting up the Group Policy object

Use this procedure to set up a Group Policy object for agent deployment in the entire domain or in its organizational unit.

### Prerequisites

- You must be logged on to the domain controller as a domain administrator; if the domain has more than one domain controller, log on to any of them as a domain administrator.
- If you are planning to deploy the agent in an organizational unit, make sure that the organizational unit exists in the domain.
- Make sure that you have completed the steps described in Preparing the agent's deployment (p. 14).

#### *Step 1: Creating a Group Policy object*

1. In the **Start** menu, point to **Administrative Tools**, and then click **Active Directory Users and Computers**.
2. Right-click the name of the domain or organizational unit, and then click **Properties**.
3. In the dialog box, click the **Group Policy** tab, and then click **New**.
4. Type the name of the new Group Policy object—for example: **Acronis Backup & Recovery 10 Agent**
5. Click **Edit**. The Group Policy Object Editor snap-in will open. You can now close the dialog box by clicking **Close**.

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***Step 2: Configuring the Group Policy object***

1. In the **Group Policy Object Editor** snap-in, expand **User Configuration**, and then expand **Software Settings**.
2. Right-click **Software installation**, then point to **New**, and then click **Package**.
3. Select the agent's setup file in the shared folder that you previously created, and then click **Open**.
4. In the **Deploy Software** dialog box, click **Advanced**, and then click **OK**.
5. On the **Deployment** tab, under **Deployment type**, click **Assigned**.
6. Under **Deployment options**, select the **Install this application at logon** check box.

   ***Note:*** *You might want to clear the* ***Install this application at logon*** *check box if some users in your network log on to the domain via a slow connection such as a dial-up connection. If you clear this check box, all users will have to start the agent's installation by clicking a shortcut in* ***Add or Remove Programs*** *after they log on to the domain.*

7. Under **Installation user interface options**, click **Basic**.
8. On the **Modifications** tab, click **Add**, and then select the modification—also called transform—that you previously created; the transform file has the name **AgentWindows.mst** and is located in the same folder as the agent's installation package.
9. Click **OK** to close the **Deploy Software** dialog box.

# 1.8. Using Acronis License Server

Acronis License Server is a mechanism that tracks licenses of Acronis products.

A license key is associated with the Media Access Control address (MAC address) of the machine managed by Acronis Backup & Recovery 10 agent. In cases when the machine has multiple network interface cards (NICs), the license key is associated with the first enumerated physical NIC and its MAC address.

Acronis License Server can import multiple license keys from .txt or .eml files, saving you from the time-consuming procedure of typing in numbers.

When upgraded, recovered or reinstalled, the Acronis License Server keeps all the imported licenses intact. However, it is recommended that you copy the file(s) with license keys to removable media, or create a hard copy of that file(s) and keep it in a safe place. This ensures that you have license data available in case of hardware failure.

## Viewing information about licenses

1. Run the Acronis Backup & Recovery 10 Management Console.
2. Click **Manage licenses**. Connect to the machine where Acronis License Server is installed. This will display all license keys available on the license server. One license key can contain multiple licenses.

   Right-click on the column headings bar to choose the details to display: Product Name, Serial Number, Import Date, Expiration Date and Total number of licenses assigned to each license key, as well as how many of them are available (i.e. free) and used. For example, if one license corresponds to one license key, Total=1, Available=1, Used=0 (if the license is free) or Available=0, Used=1 (if the license has been acquired).

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3. To display more information about used licenses, select **Manage used licenses** on the sidebar. (This item does not appear while all licenses are free).

   The Used mode lists all licenses that are acquired. Right-click on the column headings bar to choose the details to display: Product Name, Host Name, Host Address, Serial Number, Acquire Date (date of deployment or installation that used the license) and Renewal Date.

You can sort any list using **View > Arrange Icons by**.

### Removing licenses

To completely remove a license from the Acronis License Server, select it from the list of available licenses and click **Remove license** on the sidebar.

### Using the Acronis License Server Management Tool

The LicenseServerCmdLine.exe file is located in the license server installation folder, by default it is \Program Files\Acronis\LicenseServer.

LicenseServerCmdLine.exe uses the following syntax:

```
LicenseServerCmdLine [command] [option1] [option2]
```

LicenseServerCmdLine.exe supports the following commands and command options:

```
--list
```

Displays the list of Acronis License Servers found on the local network.

```
--status [servername or server IP-address]
```

Displays the status of the specified license server, i.e. the number of total/free licenses for each Acronis product.

```
--import [servername] [license key]
```

Adds a new license key to the specified license server. You can specify multiple license keys (space separated).

```
--import-file [servername] [filename]
```

Imports license keys from a .txt or .eml file.

```
--help
```

Shows usage.

## 1.9. Upgrading to advanced editions of Acronis Backup & Recovery 10

This section describes how to upgrade the following editions of Acronis True Image Echo:

- **Acronis True Image Echo Workstation** to **Acronis Backup & Recovery 10 Advanced Workstation**

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- **Acronis True Image for Microsoft Windows Small Business Server** to **Acronis Backup & Recovery 10 Advanced Server SBS Edition**.

The advanced editions of Acronis Backup & Recovery 10 include Acronis License Server that has to be installed prior to the Echo agents and local versions upgrade.

The advanced editions of Acronis Backup & Recovery 10 do not have local versions. Local versions of Acronis True Image Echo are upgraded to Acronis Backup & Recovery 10 agents. Then you can install Acronis Backup & Recovery 10 Management Console on the machines, where local administration is required.

## 1.9.1. Before the upgrade

### Preparation

Before proceeding with the upgrade on one or more machines, make sure that:

- The Acronis License Server contains the appropriate number of license keys for the corresponding Acronis True Image Echo editions.
- You have upgrade license keys for Acronis Backup & Recovery 10 for each machine. You will import these keys after installing or upgrading the license server.

### Upgrade sequence

We recommend performing the upgrade in the following order:

1. Install or upgrade Acronis License Server. See "Installing or upgrading the Acronis License Server (p. 20)".
2. Install Acronis Backup & Recovery 10 Management Console. See "Installing Acronis Backup & Recovery 10 Management Console (p. 21)".
3. Install Acronis Backup & Recovery 10 Management Server and convert the Acronis Group Server's group tasks to the management server's backup policies. See "Upgrading Acronis Group Server to Acronis Backup & Recovery 10 Management Server (p. 21)".
4. Install Acronis Backup & Recovery 10 Storage Node and convert the Acronis Backup Server's backup locations to the storage node's centralized vaults. See "Upgrading Acronis Backup Server to Acronis Backup & Recovery 10 Storage Node (p. 22)".
5. Upgrade Acronis True Image Echo agents and local versions, and import the local tasks and backup locations. See "Upgrading Acronis True Image Echo agents and local versions".

## 1.9.2. Installing or upgrading the Acronis License Server

If an earlier version of the license server is already installed, upgrade it by installing the new license server on the same machine. In this case, the old license keys will be present on the upgraded license server. If you have not used a license server before, import both old license keys and upgrade license keys to the newly installed license server.

***To install or upgrade the license server***

1. Run the Acronis Backup & Recovery 10 setup file.
2. Click **Install Acronis Backup & Recovery 10**.

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3. Click **Install Acronis License Server on this machine** and follow the on-screen instructions.
4. Import the upgrade license keys for Acronis Backup & Recovery 10.
5. If you have not used a license server before, import the old license keys.

**Result:**

- The license server contains the old license keys and the newly imported upgrade license keys.

### 1.9.3. Installing Acronis Backup & Recovery 10 Management Console

You can install Acronis Backup & Recovery 10 Management Console on the same machine as Acronis True Image Echo Management Console, or on a different machine. In either case, you can continue using Acronis True Image Echo Management Console with Acronis True Image Echo components if these still exist in your infrastructure.

***To install Acronis Backup & Recovery 10 Management Console***

1. Run the Acronis Backup & Recovery 10 setup file.
2. In the list of components, select the **Management Console** check box.
3. Follow the on-screen instructions.

**Result:**

- Acronis Backup & Recovery 10 Management Console is installed.
- You can continue using Acronis True Image Echo Management Console with Acronis True Image Echo components.

### 1.9.4. Upgrading Acronis Group Server to Acronis Backup & Recovery 10 Management Server

You can install Acronis Backup & Recovery 10 Management Server on the same machine as the Acronis Group Server, or on a different machine.

The management server and the group server are independent of each other: if you are not planning to use the group server, you can uninstall it at any time, including before the management server's installation. Otherwise, you can continue using the group server with Acronis True Image Echo components if these still exist in your infrastructure.

After the management server is installed, you can import the group server's group tasks as the management server's backup policies—even after you uninstall the group server.

***Note:*** *The tasks that back up data to Acronis Backup Server or validate archives stored on it will not be imported to the management server.*

***To install the management server***

1. Run the Acronis Backup & Recovery 10 setup file.
2. In the list of components to install, select the **Management Server** check box.
3. To be able to import the group server's group tasks, select the **Upgrade Tool** check box.
4. Follow the on-screen instructions.

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***To import the group server's group tasks***

1. On the machine where the management server is installed, log on as a member of the Administrators group.
2. Change the current folder to the folder where the upgrade tool is installed—by default: **C:\Program Files\Acronis\UpgradeTool**

   If Acronis Backup & Recovery 10 is installed in a folder other than the default folder, change the path accordingly.
3. If the group server and the management server are installed on the same machine, run the following command (note capitalization):

   ```
   cscript UpgradeTool.vbs GS [-r]
   ```

   (the optional parameter **-r** is described below). Otherwise, run the following command:

   ```
   cscript UpgradeTool.vbs GS MachineName -u UserName [-p Password] [-r]
   ```

   Description of parameters:

   *MachineName*

   Specifies the name or IP address of the machine where the group server is installed.

   **-u** *UserName*

   Specifies the user name of a member of the Administrators group on the *MachineName* machine.

   **-p** *Password*

   Specifies the password for the *UserName* user. If you skip this parameter, the upgrade tool will prompt you for a password.

   **-r**

   Effective only if you are planning to upgrade the machines' tasks—see "Upgrading Acronis True Image Echo agents and local versions".

   This parameter prohibits the conversion of local backup plans, resulting from the upgrade of group tasks on a machine, to centralized backup plans. When this parameter is specified, local backup plans resulting from upgrade of group tasks on a machine, will remain local after the machine is registered on the management server. Otherwise, the management server will convert them to centralized backup plans and establish correspondence between these centralized plans and the policy resulting from the group task upgrade.

**Result:**

- The imported group tasks become the management server's backup policies and appear in the **Backup policies** view.
- (After you upgraded tasks on a machine and if you did not specify the **-r** parameter.) When a machine to which a group task was originally applied registers on the management server, the corresponding backup policy will become applied to that machine.

## 1.9.5. Upgrading Acronis Backup Server to Acronis Backup & Recovery 10 Storage Node

You can install Acronis Backup & Recovery 10 Storage Node on the same machine as the Acronis Backup Server, or on a different machine.


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If you want to import the backup server's locations as the storage node's centralized vaults, you must install the storage node on the same machine as the backup server.

Importing the backup server's locations as centralized vaults facilitates access to the Acronis True Image Echo archives stored in them. No Acronis Backup & Recovery 10 archives can be created in these vaults.

### *To install Acronis Backup & Recovery 10 Storage Node*

1. Run the Acronis Backup & Recovery 10 setup file.
2. In the list of components to install, select the **Storage Node** check box.
3. To be able to import the backup server's locations, select the **Upgrade Tool** check box.
4. Follow the on-screen instructions.

### *To import the backup server's locations*

1. On the machine where the storage node is installed, log on as a member of the Administrators group.
2. Change the current folder to the folder where the upgrade tool is installed—by default: **C:\Program Files\Acronis\UpgradeTool**

   If Acronis Backup & Recovery 10 is installed in a folder other than the default folder, change the path accordingly.
3. Run the following command:

   ```
   cscript UpgradeTool.vbs BS
   ```

**Result:**

- The backup server's backup locations are the storage node's centralized vaults.
- If the storage node is registered on the management server, these centralized vaults will appear on the management server in the **Vaults** view.
- Each centralized vault is named according to the backup location's folder.
- Each centralized vault displays all archives currently present in the corresponding backup location.

## Coexistence of the backup server and the storage node

Suppose that both the backup server and the storage node are installed and operational on the same machine, and that you imported the backup server's locations as the storage node's centralized vaults. In this case:

- The backup server continues working as before: Acronis True Image Echo components can back up data to and recover data from the locations; the backup server cleans up the location according to quotas and time limits.
- The storage node accesses the corresponding centralized vaults in the read-only mode: you can view the vaults' contents and recover data from their archives, but no archives can be deleted from the vaults.

When restarting the machine or manually restarting services, make sure that the backup server service starts before the storage node service. Otherwise, the backup server may not work.

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To ensure the correct order of starting the services, you can make the storage node service dependent on the backup server service, as described in the corresponding Microsoft Help and Support article http://support.microsoft.com/kb/193888.

## 1.9.6. Upgrading Acronis True Image Echo agents and local versions

### Installing agents

To upgrade Acronis True Image Echo agents and local versions, install Acronis Backup & Recovery 10 agents on the machines where the old agents and local versions are installed.

**In Windows:**

1. Run the Acronis Backup & Recovery 10 setup file.
2. Specify the name or IP address of the Acronis License Server.
3. In the list of components, select the components that you want to install. Select to install Acronis Backup & Recovery 10 Management Console, along with the agent, if local administration is required on the machine. To be able to upgrade the old tasks, select the **Upgrade Tool** check box.
4. Confirm the deletion of the currently installed agent or local version. To upgrade the old tasks at the time of installation, select the **Import existing tasks** check box. Or you can upgrade the tasks later at any time. For details, see "Upgrading tasks" later in this section.
5. Follow the on-screen instructions. For details, see "Local installation (Windows) (p. 9)".

Instead of local installation, you can install Acronis Backup & Recovery 10 agents remotely or by using Group Policy. For details, see "Remote installation (Windows) (p. 12)" and "Installing components using Group Policy (p. 13)".

***Note:*** *To upgrade an Acronis True Image Echo agent using the console's remote installation functionality, you need either Acronis True Image Echo or Acronis Backup & Recovery 10 agent on the machine you operate from. Otherwise, at least one full (not upgrade) license must be available (i.e. free) on the license server. This may be a license for any edition of Acronis True Image Echo or Acronis Backup & Recovery 10. The license will remain available after the upgrade.*

**In Linux:**

1. Install Acronis Backup & Recovery 10 Agent for Linux and the Upgrade Tool as described in "Installation procedure".
2. Install Acronis Backup & Recovery 10 Management Console, if local administration is required on the machine.

**Result:**

- The Acronis True Image Echo agents and local versions are replaced with Acronis Backup & Recovery 10 components.

### Upgrading tasks

You might want to import the old backup tasks and validation tasks to Acronis Backup & Recovery 10. If you do not import them, these tasks will no longer run.

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***Note:*** *The tasks that back up data to Acronis Backup Server or validate archives stored on it will not be imported to Acronis Backup & Recovery 10.*

You can import the old tasks at the time of agent installation (see the installation instructions earlier in this section), or later by using Acronis Backup & Recovery 10 Upgrade Tool. This command-line utility is located in the Acronis Backup & Recovery 10 installation directory, in the UpgradeTool subdirectory.

**In Windows:**

1. Change the current folder to the folder where the upgrade tool is installed—by default: **C:\Program Files\Acronis\UpgradeTool**

   If Acronis Backup & Recovery 10 is installed in a folder other than the default folder, change the path accordingly.
2. Run the following command (note capitalization):

   ```
   cscript UpgradeTool.vbs Agent
   ```

**In Linux:**

1. Change the current directory to: **/usr/lib/Acronis/UpgradeTool**
2. Run the following command:

   ```
   UpgradeTool.sh Agent
   ```

**Result:**

- Tasks that were present in Acronis True Image Echo, are converted to Acronis Backup & Recovery 10 tasks and appear in the **Backup plans and tasks** view.
- Each backup task's schedule, items to back up, and backup destination are the same as before, but the task will create a new archive to perform further backups.
- Each backup task is part of a backup plan. You can edit the backup plan to change the task's schedule or other parameters.
- The tasks' log entries are not imported.

## Using backup archives created with Acronis True Image Echo

After the upgrade to Acronis Backup & Recovery 10, you have the ability to recover data from backups created with Acronis True Image Echo.

To facilitate access to these backups, you may want to create a personal vault where the backups are located. For instructions on how to create a personal vault, see the "Actions on personal vaults" section in the User's Guide.

A personal vault can store both Acronis True Image Echo archives and Acronis Backup & Recovery 10 archives. You can specify this vault as a destination for new backup plans.

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